Reply to Office Action of: 6/9/03

This listing of claims will replace all prior versions of claims in the present application:

## **Listing of Claims:**

1. (currently amended) A curable coating composition comprising:

20-80% of at least one terminally ethylenically unsaturated acrylated oligomer comprising a poly(propylene glycol) containing polyol soft block having a number average molecular weight of more than about 4000 Daltons; and

20-80% of a propylene oxide containing monofunctional acrylate the composition further comprising at least one ethylenically unsaturated reactive monomer,

wherein said composition when cured has a tensile strength of at least about 0.85 MPa and a Young's Modulus of less than about 1.3 MPa.

- 2. (previously presented) The coating composition of claim 1, wherein said polyol soft block has a number average molecular weight of at least about 8000 Daltons.
- 3. (canceled)
- 4. (previously presented) The coating composition of claim 1, wherein said oligomer comprises:
  - HEA~H12MDI~PPG<sub>4000</sub>~H12MDI~HEA, where PPG<sub>4000</sub> comprises a polypropylene glycol having a number average molecular weight of approximately 4000 Daltons and a molecular weight distribution of less than about 1.1, H12MDI comprises 4,4'-methylenebis(cyclohexylisocyanate), and HEA comprises 2-hydroxyethyl acrylate.
- 5. (previously presented) The coating composition of claim 1, wherein said oligomer comprises:

HEA~H12MDI~PPG<sub>4000</sub>~H12MDI~PPG<sub>4000</sub>~H12MDI~HEA,

Reply to Office Action of: 6/9/03

where PPG<sub>4000</sub> comprises a polypropylene glycol having a number average molecular weight of approximately 4000 Daltons and a molecular weight distribution of less than about 1.1, H12MDI comprises

4,4'-methylenebis(cyclohexylisocyanate), and HEA comprises 2-hydroxyethyl acrylate.

- 6. (previously presented) The coating composition of claim 1, wherein said oligomer comprises:
  - HEA~(IPDI~PPG $_{2000}$ ~IPDI) ~ $T_{2000}$ ~(IPDI~PPG $_{2000}$ ~IPDI)~HEA, where HEA comprises hydroxyethyl acrylate, IPDI comprises isophorone diisocyanate, PPG $_{2000}$  comprises poly(propylene glycol) with a  $M_n$  of about 2000 Daltons and  $T_{2000}$  comprises poly(tetramethylene glycol) with a  $M_n$  of about 2000 Daltons.
- 7. (original) The coating composition of claim 1, wherein said oligomer is substantially devoid of a polyurea group (-N(C=O)N-).
- 8. (original) The coating composition of claim 1, wherein said monomer is a tripropylene glycol methylether monoacrylate.
- 9. (original) The coating composition of claim 1, wherein said monomer comprises:  $R_2\text{-}R_1\text{-}O\text{-}(CH_2CH_3CH\text{-}O)_n\text{-}COCH\text{=}CH_2, \text{ where } R_1 \text{ and } R_2 \text{ are aliphatic,}}$  aromatic, or a mixture of both, and n=1 to 10.
- 10. (original) The coating composition of claim 1, wherein said monomer comprises:  $R_1\text{-O-}(CH_2CH_3CH\text{-O})_n\text{-COCH=}CH_2 \text{ , where } R_1 \text{ is aliphatic or aromatic, and} \\ n=1 \text{ to } 10.$
- 11. (canceled)
- 12. (currently amended) The coating composition of claim 1, wherein said monomer is selected from the group consisting of propylene oxide acrylates, n-propylene oxide acrylates, iso-propylene oxide acrylates, substituted iso-propylene oxide acrylates,

Reply to Office Action of: 6/9/03

substituted alkoxy alkyl alkenes, propylene oxide ethoxylated oxides, and combinations thereof.

- 13. (previously presented) The coating composition of claim 1, wherein said composition when cured has a Young's Modulus of about 1.28 MPa or less and a tensile strength of at least about 1 MPa.
- 14. (previously presented) The coating composition of claim 13, wherein said composition when cured has a Young's Modulus of about 1.25 MPa or less.
- 15. (previously presented) The coating composition of claim 13, wherein said composition when cured has a Young's Modulus of about 1 MPa or less.
- 16. (previously presented) The coating composition of claim 13, wherein said composition when cured has a tensile strength of at least about 1.5 MPa.
- 17. (previously presented) The coating composition of claim 13, wherein said composition when cured has a tensile strength of at least about 1.75 MPa.
- 18. (previously presented) The coating composition of claim 13, wherein said composition before curing has a viscosity at 25° C of less than about 80 Poise.
- 19. (previously presented) The coating composition of claim 14, wherein said composition before curing has a viscosity at 25° C of less than about 50 Poise.
- 20. (original) The composition of claim 1, further comprising a photoinitiator.
- 21. (previously presented) The composition of claim 1, further comprising at least one of an adhesion promoter, reactive diluent, antioxidant, catalyst, stabilizer, property-enhancing additive, wax, lubricant, or slip agent.

. . .

Reply to Office Action of: 6/9/03

22. (currently amended) A coated optical fiber comprising an optical fiber having a primary coating layer thereon, the primary coating layer comprising the polymerized product of a curable coating composition comprising

20-80% of at least one terminally ethylenically unsaturated acrylated oligomer comprising a poly(propylene glycol) containing polyol soft block having a number average molecular weight of more than about 4000 Daltons, and

20-80% of a propylene oxide containing monofunctional acrylate the composition further comprising at least one ethylenically unsaturated reactive monomer,

wherein said primary coating layer has a tensile strength of at least about 0.85 MPa and a Young's Modulus of less than about 1.3 MPa.

- 23. (previously presented) The coated fiber of claim 22, wherein said polyol soft block has a number average molecular weight of at least about 8000 Daltons.
- 24. (canceled)
- 25. (previously presented) The coated fiber of claim 22, wherein said oligomer comprises:
  - HEA~H12MDI~PPG<sub>4000</sub>~H12MDI~HEA, where PPG<sub>4000</sub> comprises a polypropylene glycol having a number average molecular weight of approximately 4000 Daltons and a molecular weight distribution of less than about 1.1, H12MDI comprises 4,4'-methylenebis(cyclohexylisocyanate), and HEA comprises 2-hydroxyethyl acrylate.
- 26. (previously presented) The coated fiber of claim 22, wherein said oligomer comprises: HEA~H12MDI~PPG4000~H12MDI~PPG4000~H12MDI~HEA, where PPG4000 is a polypropylene glycol having a molecular weight of approximately 4000 Daltons and a molecular weight distribution of less than about 1.1, H12MDI is 4,4'-methylenebis(cyclohexylisocyanate), and HEA is 2-hydroxyethyl acrylate.

Reply to Office Action of: 6/9/03

27. (previously presented) The coated fiber of claim 22, wherein said oligomer comprises:

HEA~(IPDI~PPG<sub>2000</sub>~IPDI) ~ $T_{2000}$ ~(IPDI~PPG<sub>2000</sub>~IPDI)~HEA, where HEA comprises hydroxyethyl acrylate, IPDI comprises isophorone diisocyanate, PPG<sub>2000</sub> comprises poly(propylene glycol) with a  $M_n$  of about 2000 Daltons and  $T_{2000}$  comprises poly(tetramethylene glycol) with a  $M_n$  of about 2000 Daltons.

- 28. (original) The coated fiber of claim 22, wherein said oligomer is substantially devoid of a polyurea group (-N(C=O)N-).
- 29. (original) The coated fiber of claim 22, wherein said monomer is a tripropylene glycol methylether monoacrylate.
- 30. (original) The coated fiber of claim 22, wherein said monomer comprises:  $R_2\text{-}R_1\text{-}O\text{-}(CH_2CH_3CH\text{-}O)_n\text{-}COCH\text{=}CH_2, \text{ where } R_1 \text{ and } R_2 \text{ are aliphatic,}}$  aromatic, or a mixture of both, and n=1 to 10.
- 31. (original) The coated fiber of claim 22, wherein said monomer comprises:  $R_1\text{-O-}(CH_2CH_3CH\text{-O})_n\text{-COCH=}CH_2 \text{ , where } R_1 \text{ is aliphatic or aromatic, and } \\ n=1 \text{ to } 10.$
- 32. (previously presented) The coated fiber of claim 31, wherein the curable coating composition further comprising a monomer having a branched polyoxyalkylene chain.
- 33. (currently amended) The coated fiber of claim 22, wherein said monomer comprises propylene oxide acrylates, n-propylene oxide acrylates, iso-propylene oxide acrylates, substituted iso-propylene oxide acrylates, substituted alkoxy alkyl alkenes, propylene oxide ethoxylated oxides, or combinations thereof.
- 34. (previously presented) The coated fiber of claim 22, wherein said primary coating layer has a Young's Modulus of about 1.28 MPa or less and a tensile strength of at least about 1 MPa.

Reply to Office Action of: 6/9/03

35. (previously presented) The coated fiber of claim 22, wherein said primary coating layer has a Young's Modulus of about 1.25 MPa or less.

- 36. (previously presented) The coated fiber of claim 22, wherein said primary coating layer has a Young's Modulus of about 1 MPa or less.
- 37. (previously presented) The coated fiber of claim 22, wherein said primary coating layer has a tensile strength of at least about 1.5 MPa.
- 38. (previously presented) The coated fiber of claim 22, wherein said primary coating layer has a tensile strength of at least about 1.75 MPa.
- 39. (currently amended) A method for making a coated optical fiber, comprising the steps of:

providing an optical fiber;

of at least one terminally ethylenically unsaturated acrylated oligomer comprising a poly(propylene glycol) containing polyol soft block having a number average molecular weight of more than about 4000 Daltons, and 20-80% of a propylene oxide containing monofunctional acrylate the composition further comprising at least one ethylenically unsaturated reactive monomer; and

polymerizing the composition under conditions effective to form a primary coating over the optical fiber,

wherein said primary coating has a tensile strength of at least about 0.85 MPa and a Young's Modulus of less than about 1.3 MPa.

- 40. (previously presented) The method of claim 39, further comprising the step of coating the optical fiber with a secondary polymerizable composition over said primary coating.
- 41. (original) The method of claim 40, wherein said coating of the optical fiber with a secondary polymerizable composition is carried out prior to said polymerizing,

Reply to Office Action of: 6/9/03

whereby said polymerizing simultaneously polymerizes said polymerizable compositions.

- 42. (original) The method of claim 40, wherein said coating of the optical fiber with a secondary polymerizable composition is carried out after said polymerizing and further comprises polymerizing the secondary polymerizable composition after it is applied to the glass fiber.
- 43. (previously presented) The coating composition of claim 1, wherein said polyol soft block comprises a polyol having a molecular weight distribution of less than about 1.1.
- 44. (previously presented) The coating composition of claim 1, wherein said composition before curing has a viscosity at 25° C of less than about 970 centiPoise.
- 45. (canceled)
- 46. (currently amended) A curable coating composition comprising: at least one oligomer comprising a polyol soft block having a number average molecular weight of more than about 4000 Daltons wherein said oligomer comprises at least one of the oligomers selected from the group consisting of HEA-H12MDI-PPG4000-H12MDI-HEA; HEA-H12MDI-PPG<sub>4000</sub>-H12MDI-PPG<sub>4000</sub>-H12MDI-HEA; HEA-(IPDI-PPG<sub>2000</sub>-IPDI)-T<sub>2000</sub>-(IPDI-PPG<sub>2000</sub>-IPDI)-HEA; HEA-(IPDI-T<sub>2000</sub>-IPDI)-PPG<sub>2000</sub>-(IPDI-T<sub>2000</sub>-IPDI)-HEA; HEA-(IPDI-PPG<sub>2000</sub>-IPDI)-BD-(IPDI-PPG2000-IPDI)-HEA; HEA-(IPDI-BD-IPDI)-PPG2000-(IPDI-BD-IPDI)-HEA; HEA-(IPDI-EG<sub>4</sub>-IPDI)-PPG<sub>2000</sub>-(IPDI-EG<sub>4</sub>-IPDI)-HEA; HEA-H12MDI-PPG8000-H12MDI-HEA; and combinations thereof, wherein HEA comprises a hydroxyethyl acrylate capping group, IPDI comprises isophorone diisocyanate, PPG2000 comprises a poly(propylene glycol) with a  $M_n$ = 2000,  $T_{2000}$  comprises a poly(tetramethylene glycol) with a M<sub>n</sub>= 2000, BD comprises a butanediol, EG<sub>4</sub> comprises a tetraethylene gylcol, and PPG<sub>4000</sub>

Reply to Office Action of: 6/9/03

comprises a poly(propylene glycol) with a  $M_n$ = 4000, and H12MDI comprises 4,4'-methylenebis(cyclohexylisocyanate),

the composition further comprising at least one ethylenically unsaturated reactive monomer,

wherein said composition when cured has a tensile strength of at least about 0.85 MPa and a Young's Modulus of less than about 1.3 MPa.